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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,398	01/12/2006	John Van De Sype	CGL03/0503US01	1501
38550	7590	11/14/2008	EXAMINER	
CARGILL, INCORPORATED			SMITH, CHAIM A	
LAW/24				
15407 MCGINTY ROAD WEST			ART UNIT	
WAYZATA, MN 55391			PAPER NUMBER	
			4132	
			MAIL DATE	
			DELIVERY MODE	
			11/14/2008	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,398	Applicant(s) VAN DE SYPE ET AL.	
	Examiner CHAIM SMITH	Art Unit 4132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/12/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 3 of the specification USPN 4,496,498 is referenced to Gupta. The referenced patent is to Pluss. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. **The following is a quotation of the first paragraph of 35 U.S.C. 112:**

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 – 14 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for applying to a powder a coating comprising a separated lecithin as evidenced by examples 1 – 4 in the specification, does not reasonably provide enablement for how a lecithin product with the specific ratios of alkali metals to alkaline earth metals as claimed would be produced. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The claims are directed to a process for treating powders wherein specific ratios of alkali metals to alkaline earth metals in a lecithin preparation are to be present. The lecithin of claim 1 is separated by the use of a membrane whereas the lecithin of claim 6 is not required to be.

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4. With respect to the processing of miscella, the specification provides guidance on the membranes used and their conditioning (page 3, lines 4 – 14 and 22 - 33), retentate processing (page 4, lines 3 – 17), and the method by which the elemental analysis was preformed to determine the specific ratios of alkali metals to alkaline earth metals in the lecithin (page 4, line 21 - page 5, line 7). The specification, however, does not disclose the specific method of miscella processing which would allow the claimed ratios of alkali metals to alkaline earth metals to be achieved during the refinement process.

5. The prior art teaches exemplary methods of preparing lecithin products from vegetable oil miscella by the use of membranes and discloses that metal content reductions are achieved in the refinement process. Gupta USPN 4,496,489 discloses the use of salts of magnesium and calcium to allow the use of higher cut-off limit membranes in the separation process to increase throughput (column 3, line 56 - column 4, line 5). Further, Gupta USPN 4,533,501, discloses that the concentration of metals is significantly reduced by use of ultra filtration in miscella processing (columns 10 and 11, example IV). Jirjis USPN 6,833,149 teaches the use of NaOH as a further refinement aid to remove gums to produce lecithin and that these techniques are well known in the art (column 1, lines 44 – 65). Jirjis '149 further teaches that significant reductions in metal ions (calcium and magnesium) are achieved in the use of membrane processing of miscella (column 16, table 1). Copeland USPN 6,844,458 discloses that typical metal compounds found in crude vegetable oil include alkali and alkali earth metals which refiners normally remove in the refining process to avoid discoloration and maintain stability of the refined oil (column 2, lines 11 – 24). The

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reviewed prior art teaches the use of alkali and alkaline earth metals in the refining process and that these metals will be present in some ratio in the post refining products. None of the reviewed prior art, however, discloses specific ratios of alkali metals to alkaline earth metals or by what method of processing a given ratio range would be achieved. Therefore, it is unknown what processing steps would be required to produce a lecithin product with the specific alkali – alkaline earth metal ratio ranges that are claimed.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1 – 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Regarding claims 1, 2, 6, 7, 13, and 14 wherein the ratio of alkali metals to alkaline earth metals are in a given range, it is unclear what units these ratios represent. Are they atomic mass units, ppm, or some other unit value? It is unclear whether the ratios are to be present in the lecithin, the coated powder, or the powder and the coating?

9. Regarding claims 4 and 9 wherein lecithin is used in the form of an oil composition in an amount greater than 0 to about 100% by weight, is this the weight of lecithin with respect to the weight of the oil or the weight of the lecithin in the lecithin containing composition prior to the addition of oil? Further, can the amount of lecithin be such that no oil is required to be present in the composition?

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10. Regarding claims 3, and 8 wherein lecithin is used in the form of a water composition in an amount greater than 0 to about 30%, is this the weight of lecithin with respect to the weight of water in the composition or the weight of the lecithin in the lecithin containing composition prior to the addition of water?

11. Further regarding claims 3, 4, 8, and 9, are the other constituents of the compositions to be present by weight or volume percent?

12. Regarding claim 6 wherein the lecithin has a ratio of alkali metals to alkaline earth metals in mono-valent or di-valent ionic state, Are the alkali metals to be present in the mono-valent state and the alkaline earth metals in the di-valent state respectively or not necessarily?

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 1 - 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tumerman USPN 3,291, in view of 614Jirjis USPN 6,207,209.

16. Regarding claims 1, 2, 6, and 7 wherein a powder is treated by applying a coating comprising a separated lecithin having specific ratios of alkali metals to alkaline earth metals, Tumerman teaches a process wherein a powder (soluble dry milk) is treated by applying a coating of lecithin to improve the dispersibility of the powder (column 3, lines 56 – 65). Tumerman teaches that lecithin is the preferred material for treating powders (column 4, lines 26 – 27).

17. Although Tumerman teaches that lecithins are preferred materials, without specifying any particular material. Hence, Tumerman does not teach the use of lecithin having specific ratios of alkali to alkaline earth metals. Jirjis teaches a lecithin for food processing. Jirjis appears to teach a method of removing lecithin by the use of a membrane separation process in the refining of vegetable oil (column 6, line 17 – column 8, line 19). Therefore it would have been obvious to use any lecithin for food processing in the process of Tumerman, including that of Jirjis, since Tumerman teaches that such materials would be expected to be generally effective.

18. Further, Jirjis appears to teach the method of membrane separation of lecithin as taught in example B of the instant application. It would therefore be expected, that the ratios of alkali to alkaline earth metals would be comparable to those in the instant application.

19. Regarding claims 3 - 10, Tumerman in view of Jirjis, is relied upon with regards to the rejection of claim 1 as set forth above.

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20. Regarding claims 3 and 8, Tumerman in view of Jirjis, teaches the use of lecithin in a water composition (lecithin water emulsion) comprising lecithin in an amount that is greater than 0 and less than 30 percent lecithin by weight ('614 column 5, lines 54 – 59 and claim 28).

21. Regarding claims 4 and 9, Tumerman in view of Jirjis teaches the use of lecithin in an oil composition comprising lecithin in an amount greater than 0 and less than 100 percent by weight ('614 column 6, lines 68 – 72).

22. Regarding claims 5 and 10, Tumerman in view of Jirjis teaches that the amount of coating (lecithin, surface active agent) applied to the powder is an amount sufficient to coat the powder ('614 column 3, lines 66 - 75 and claim 1).

23. Regarding claims 11 and 12 wherein a product is produced in accordance with claims 1 and 6 respectively, if the process is performed it is expected that a product would be produced in accordance with the process as claimed.

23. Regarding claims 13 and 14, Tumerman in view of Jirjis teaches a process for improving the wettability and dispensability of a powder (milk) using a lecithin composition ('614 claim 1). Regarding the claimed ratios of alkali to alkaline earth metals, in view of the

CONCLUSION

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAIM SMITH whose telephone number is (571)270-7369. The examiner can normally be reached on Monday-Thursday 7:30-5:00.

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25. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Lavilla can be reached on 571-272-1539. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

26. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAIM SMITH/
Examiner, Art Unit 4132

**/Michael La Villa/
Michael La Villa
Supervisory Patent Examiner, Art Unit 4132
10 November 2008**